

## II. CLAIMS

There are no amendments to the claims.

1. (previously presented) A method for choosing a connection-specific channel coding and/or interleaving scheme comprising:

requesting a specific communication connection over a radio interface between a mobile terminal and a base station of a cellular packet radio system;

as part of said requesting a specific communication connection, communicating a request message, said request message indicating a need for setting up a new radio bearer between the mobile terminal and the base station or changing the characteristics of an existing radio bearer between the mobile terminal and the base station, said request message further indicating a certain set of desired Quality of Service parameters selected based on an expected use of said specific communication connection, to be associated with said requested specific communication connection,

allocating a channel coding and/or interleaving scheme for independent application to said specific communication connection based, at least in part, on said desired Quality of Service parameters;

mapping said desired set of Quality of Service parameters to said allocated channel coding and/or interleaving scheme as a part of the allocation of the channel coding and/or interleaving scheme; and

communicating said allocated channel coding and/or interleaving scheme to the base station and the mobile terminal for them to independently apply said first channel coding and/or interleaving scheme for use in said specific communication connection.

2. (allowed) A method for choosing a connection-specific channel coding and/or interleaving scheme to be applied in a communication connection over a radio interface between a terminal and a base station of a cellular packet radio system where a certain

decision-making device allocates channel coding and/or interleaving schemes to communication connections, comprising the steps of:

- communicating a request message to the decision-making device, said request message indicating a need for setting up a new radio bearer between the terminal and the base station or changing the characteristics of an existing radio bearer between the terminal and the base station and indicating a certain set of Quality of Service parameters associated with a certain first communication connection,
- mapping said set of Quality of Service parameters to a certain first channel coding and/or interleaving scheme as a part of the connection-specific channel coding and/or interleaving scheme allocation made by the decision-making device and
- communicating said first channel coding and/or interleaving scheme to the base station and the terminal for them to apply said first channel coding and/or interleaving scheme in said first communication connection;

wherein the step of communicating a request message to the decision-making device further comprises the mutually alternative substeps of:

a1) indicating, within said set of Quality of Service parameters, high service precedence, short mean delay and short maximum delay when the request message concerns a certain communication connection for transmitting real-time speech and/or real-time video image, or

a2) indicating, within said set of Quality of Service parameters, low service precedence, long mean delay and long maximum delay when the request message concerns a certain communication connection for transmitting non-real time data;

and

- the step of mapping said set of Quality of Service parameters to a certain first channel coding and/or interleaving scheme comprises the mutually alternative substeps of

b1) mapping the set of Quality of Service parameters indicating high service precedence, short mean delay and short maximum delay into a channel coding scheme with no retransmissions and a long interleaving length, or

b2) mapping the set of Quality of Service parameters indicating low service precedence, long mean delay and long maximum delay into a channel coding scheme with retransmissions and a short interleaving length.

3. (allowed) A method according to claim 2, wherein step b1) further comprises the feature of mapping said set of Quality of Service parameters indicating high service precedence, short mean delay and short maximum delay into a channel coding scheme which is optimized for speech.

4. (previously presented) A method according to claim 1, wherein the step of communicating a request message is executed as a response to an observed need for setting up a new radio bearer between the mobile terminal and the base station.

5. (previously presented) A method according to claim 1, wherein the step of communicating a request message is executed as a response to an observed need for changing the characteristics of an existing radio bearer between the mobile terminal and the base station.

6. (previously presented) Apparatus for choosing a channel coding and/or interleaving scheme comprising:

- a mobile terminal, a base station and a radio interface between them,
- a certain decision-making device for allocating channel coding and/or interleaving schemes to communication connections,

- wherein the mobile terminal is adapted to request a specific communication connection with said base station over said radio interface, said request for a specific communication connection further including a request message to the decision-making device, said request message indicating a need for setting up a new radio bearer between the mobile terminal and the base station or changing the characteristics of an existing radio bearer between the mobile terminal and the base station, said request message further indicating a certain set of desired Quality of Service parameters based on an expected use of said specific communication connection, to be associated with said requested specific communication connection;

wherein the decision making device is adapted to allocate a channel coding and/or interleaving scheme for independent application to said requested specific communication connection based, at least in part, on said desired Quality of Service parameters, and is further adapted to map said desired Quality of Service parameters to said allocated channel coding and/or interleaving scheme as a part of the allocation of the channel coding and/or interleaving scheme; and

wherein said decision making device is adapted to communicate said allocated coding and/or interleaving scheme to the base station and the mobile terminal for them to independently apply said allocated channel coding and/or interleaving scheme for use in said specific communication connection.